25X1

AF 7.4.6

25X1

OGI/GD/NESA

25X1

16 December 1981

Iran-Afghanistan: Helmand River Dispute Still Sensitive

The subject of water rights to the Helmand River is a sensitive issue between Afghanistan and Iran and could aggravate relations further despite larger domestic political concerns in both countries. During the last several months, Iranian officials have become apprehensive over indications that the regime in Afghanistan--at the behest of Soviet authorities--plans to abrogate the Helmand Waters Treaty between Iran and Afghanistan and to thereby create border differences between the two countries.

25X1

The river-sharing treaty, signed in 1973 but not ratified until June 1977, was intended to end decades of bickering between the two states over flow allottment. The delay in ratification was due to opposition among influential groups in the Afghan Government, who resented "giving away" what they regarded as precious Afghan water. Because of its political sensitivity, ratification was not publicized in Afghanistan, nor has the treaty been officially recognized by post-1978 revolutionary regimes.

25X1

The Helmand River Treaty assures Iran, the downstream riparian state, a basic annual average flow rate of 26 cubic meters per second in a normal year, enough water to irrigate 50,000-100,000 hectares of agricultural land or 200,000 hectares of pasture land in the Iranian portion of the Helmand delta. The treaty focuses on the low-water, dry-season flow of the river. The post-treaty phase of the dispute centers on the disposition of the excess flood flow of the Helmand. During the treaty negotiations the Iranians had tried with little success to insert a provision for purchase rights to additional flow.

25X1

25X1

The Hydrological Background

The Helmand River originates in the Hindu Kush range in Afghanistan, flows across the southern Afghan desert region, and empties into the land-locked Sistan basin in a series of brackish lakes (hamuns) and salt marshes. The river is the primary source of water in a vast arid region of southwestern Afghanistan and eastern Iran, and supports the agricultural economy of the relatively fertile and populous delta region. Only the western part of the delta is in Iranian territory. 25X1

The flow of the Helmand is perennial, although the level fluctuates seasonally. The period of low flow occurs during the months of August through November, when the flow rate averages 52-53 cubic meters per second in a normal year. In unusually dry years, the flow has fallen to less than 1 cubic meter per second. The flood flow of the river from snow melt in the Hindu Kush is in March through May. Flooding in the lower Helmand valley has two major effects: damage to canals and dikes as well as channel relocation caused by alternating scouring and sedimentation; and local inundation from ponding of the overfow in the hamuns. 25X1

These shallow seasonal lakes and extensive areas of salt marshes, most of which are located to the north and west of the delta in Iran, are a significant element in the ecology and environment of the Sistan basin. They attract large numbers of migratory birds, and are a moderating influence on the local climate. Although other rivers--the Hirut, Farah, Khash, and Dor--flow into the the basin, only the Khash contributes a significant part (about 12 percent) of the hamuns' volume. Almost none of the water that flows into the hamuns comes from the Iranian side of the border. An additional long-range factor is that, climatically, the region is drying up. Recent archeological excavations in Sistan indicate that the water table has fallen about 20 meters in the last 5,000 years. 25X1

25X1

River-Control Efforts

Both the Afghans and the Iranians have built structures to regulate and to use the Helmand flow. The Iranians have constructed control weirs and canals in their portion of the delta, but these structures are channeling devices and they lack a storage capacity. In Afghanistan, a large irrigation project in the upper Helmand River valley centered near Lashgar Gah has been financed by the U.S. AID. As part of that project the Kajaki storage dam was built in 1954. The dam improved the low water flow but did little to control the ravages of the flood flow of the river. The Afghans became convinced that the best location for a structure to control flooding in the lower Helmand valley was at the head of the delta at Bandar-i-Kamal Khan. Seeking funding and expertise, they approached the Americans--to no avail. Reportedly, the Soviets subsequently did a preliminary feasibility study in the early 1960's and proposed to help finance construction of a dam, but the Afghans declined the offer. 25X1

The Chakhansur Project

The Chakhansur Project is a flood-control and irrigation scheme for development of the Afghan portion of the Helmand delta. The plan was developed in 1972 by the International Engineering Co. (IECO) and funded by the Asian Development Bank. A dam at Bandar-i-Kamal Khan, 70 kms. upstream from the Iran-Afghanistan border, is designed to be the linchpin of the project. (Map) The plan for the Kamal Khan site calls for the construction of two earth-filled dams with concrete control structures at the head of the Helmand delta to divert the excess flood waters of the Helmand into a former distributary, the Rud-e-Biaban, thence southward into the Rudi-e-Khvoshrud and into the Gowd-e-Zereh. Now a salt flat, the Gowd-e-Zereh will become a seasonal lake. A control weir will connect the Qala Afzal Dam, which blocks the Rud-e-Biaban channel with the Kamal Khan Dam

25X1

across the Helmand. The present Helmand channel below Kamal Khan will become, in effect, a feeder canal. Two additional barrages in the delta area will enable the Afghans to irrigate 51,000 hectares of potentially fertile land. When finished, the combined structures will control and store water for downstream irrigation projects in the Chakhansur region of Afghanistan as well as provide Iran with its treaty-allotted 26 cubic meters per second of the Helmand flow. 25X1

Construction of the Kamal Khan Dam began after the ratification of the Helmand River treaty in June 1977 25X1

25X1

Completion of the Chakhansur Project would effect major environmental changes in the delta region. The immediate result--if the flood flow were diverted--would be the drying up of the present overflow ponds, the hamuns north and west of the delta, most of which are in Iran. 25X1

Iranian Objections

Bitterly opposed by the Iranians since the conception of the plan, construction of the Chakhansur Project could seriously restrict economic development in the Iranian portion of the delta. Although assured by treaty of 26 cubic meters per second of the Helmand flow, the Iranians actually use much more of the free flow of the river. The Iranian portion of the basin, regionally called Sistan, supports a ppulation of about 175,000,

25X1

including 30,000 in the town of Zabol. In addition to the diversion dams in the Iranian portion of the delta, approximately 80 pumps are in operation along the Iranian bank of the Helmand distributary where it forms the border, lifting water to Iranian fields. Prospective changes in the surface water supply following completion of the Kamal Khan Dam complex are also likely to affect the rate of recharge to the ground water supply in the area of the hamuns, and reduce the amount of water that can be drawn from local wells. In contrast, the Afghan portion of the basin, the Chakhansur, is neither as densely populated nor as developed as Sistan. The Chakhansur region has a population estimated at 40,000. 25X1

The Iranians even offered to fund the Kamal Khan Dam in return for guaranteed water purchase rights. They also sought moderation of the project design to avert the hamuns in Iran from becoming salt flats. The Iranians pointed out (with some justification) that the flood flow could be diverted into the old main distributary of the Helmand, the Rudi-e-Biaban, with the overflow reaching the Iranian hamuns from the south, to maintain the present hydrography of the region. They charge that diverting the overflow to the Gowd-e-Zereh serves no purpose as the area is desolate and unpopulated and the water would be wasted through evaporation. At one point in 1976 the controversy became so heated that the Shah ordered a halt to the funding of all Iranian aid projects in Afghanistan as an economic lever to force Afghan compliance on the Kamal Khan issue. 25X1

The need for additional water in the Iranian portion of the delta hinges on land use plans for the area. The present allotment is sufficient for maintaining Iranian land as pasturage but inadequate for developing the entire area as cropland. The Sistan basin has a long history as a wheat producing region. Yields, however, are not high, and during the last decade the region contributed only about 5 percent to Iran's total wheat

25X1

 25X1

production. The spurt in economic development in other areas of Iran during the mid-1970s attracted local youth away from the Sistan region. With depleted manpower and a declining population in the region, the Shah's planners envisioned a gradual transition to a less labor-intensive economy. Under those circumstances, the additional water was needed only for an anticipated transition period of up to a decade. 25X1

Outmigration from Sistan undoubtedly slowed or ceased following the advent of the Revolution in Iran, reversing the planners' projection. The economy of the region is likely to continue to be agriculturally based, and totally dependent for survival on more than the treaty-allotted share of the Helmand water. 25X1

Comments

The recent concern expressed by Iranian authorities that the Afghans plan to cancel the Helmand Treaty was apparently based on publicity in Kabul attending Afghan participation in an arid lands conference held in Tashkent in October under the auspices of the United Nations.* Conference participants were asked to present a project for possible funding and action. An Indian tehnical adviser to the Afghan Government, who had worked at the Kamal Khan site, convinced Ministry of State Planning officials to use the Chakhansur Project. There is no indication that the commitment of the Ministry was more than the need to meet a conference requirement. 25X1

There is also no indication that Soviet officials at the conference seriously entertained the prospect of reviving the Chakhansur Project. It seems unlikely that either the Afghans or Soviets would seriously consider proceeding with construction on the Kamal Khan Dam at this time, given the level of dissident activity in the area and other higher priority development

* The UNEP/USSR Project to Combat Desertification through Integrated Development (CDID). 25X1

25X1

projects in less remote regions of the country. Moreover, the officials in the Afghan Government who had been the most avid promoters of the Kamal Khan Dam are now active resistance leaders in the Kandahar area.** [redacted] 25X1

The recent apprehension expressed by the Iranians, however, reveals their sensitivity and vulnerability to the Helmand water issues. [redacted] 25X1

** Former Minister of Agriculture Azizullah Wasefi and his brother, Abdul Farid Rashid, Director General for Economic Affairs in the Foreign Ministry under Mohammad Daoud. Both are Alikozai Pushtuns from the Kandahar area. [redacted] 25X1

[redacted] 25X1